(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 20 January 2005 (20.01.2005)

PCT

(10) International Publication Number

(51) International Patent Classification7:

WO 2005/006687 A1

(21) International Application Number:

H04L 12/66

PCT/KR2004/001705

(22) International Filing Date:

10 July 2004 (10.07.2004)

(25) Filing Language:

Korean

(26) Publication Language:

English

(30) Priority Data:

10-2003-0047012

10 July 2003 (10.07.2003) KR

- (71) Applicant (for all designated States except US): SAM-SUNG ELECTRONICS CO., LTD. [KR/KR]; 416, Maetan-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 442-742 (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): CHANG, Yong [KR/KR]; #403-801, Shinseong APT., Pureunmaeul, Sunae-dong, Bundang-gu, Seongnam-si, Gyeonggi-do 463-780 (KR). YI, Ji-Hae [KR/KR]; 990-21, Yeongtong-dong, Paldal-gu, Suwon-si, Gyeonggi-do 443-813 (KR).

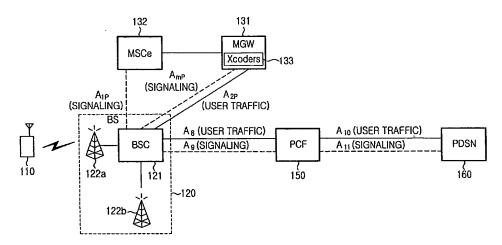
- (74) Agent: LEE, Keon-Joo; Mihwa Bldg. 110-2, Myongryun-dong 4-ga, Chongro-gu, Seoul 110-524 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND SYSTEM FOR MULTIPLEXING AND TRANSMITTING SIGNALING MESSAGE AND SUPPLE-MENTARY DATA IN A MOBILE COMMUNICATION SYSTEM



(57) Abstract: Disclosed is a method and system for multiplexing and transmitting a signaling message and supplementary data in a mobile communication system including a media gateway using packet-based transmission and a base station controller. Using Dim-and-Burst (DB) and Blank-and-Burst (BB) newly proposed as the media gateway includes a vocoder, the base station controller requests the media gateway to decrease a voice data rate during voice data transmission to the media gateway in order to multiplex a signaling message and supplementary data and transmit the multiplexed data to a mobile station. Then the vocoder in the media gateway decreases the data rate, thereby efficiently transmitting a signaling message and supplementary data together with voice data.

